

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N9/20 C12N15/55 C11D3/386 A23C19/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, EMBL, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/32758 A (SHAMKANT ANANT PATKAR ; BORCH KIM (DK); PETRI ANDREAS (DK); VIND JESPE) 8 June 2000 (2000-06-08)	1,2,4-6
Y	see claims, especially claims 27 to 29 for invention 2: see page 10, l. 7-9, p. 41, p. 46, l. 6, p. 47, l. 6-7, claims 10, 17, 36, 39	2,7
Y	WO 00/54601 A (NOVONORDISK AS) 21 September 2000 (2000-09-21) see the whole document	7
Y	WO 02/055679 A (DANIELSEN STEFFEN ; BORCH KIM (DK); VIND JESPER (DK); MINNING STEFAN) 18 July 2002 (2002-07-18) see claims; for invention 2: see p. 12, l. 10, claim 10 item (kk)	2
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the International filing date

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\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the International filing date but later than the priority date claimed

\*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&amp;\* document member of the same patent family

Date of the actual completion of the international search

4 November 2004

Date of mailing of the international search report

11.01.05

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 01/83770 A (ROGGEN ERWIN LUDO ; NOVOZYMES AS (DK)) 8 November 2001 (2001-11-08) see claims	2
Y	----- WO 95/22615 A (THELLERSEN MARIANNE ; NOVONORDISK AS (DK); SVENDSEN ALLAN (DK); CLAUSE) 24 August 1995 (1995-08-24) see claims; for invention 2: see p. 13, l. 20, p. 20, l. 15, p. 74, line 18 -----	2

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/DK2004/000426

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:  
Claims 1 to 7 (all partially)
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position D62 in SEQ ID NO:1, polynucleotide encoding it, methods for preapring it and the use of said polypeptide

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2. claims: Claims 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position V60 in SEQ ID NO:1, polynucleotide encoding it, methods for preapring it and the use of said polypeptide

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3. claims: Claims 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position S85 in SEQ ID NO:1, polynucleotide encoding it, methods for preapring it and the use of said polypeptide

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4. claims: Claims 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position G91 in SEQ ID NO:1, polynucleotide encoding it, methods for preapring it and the use of said polypeptide

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5. claims: Claims 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position R125 in SEQ ID NO:1, polynucleotide encoding it, methods for preapring it and the use of said polypeptide

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6. claims: Claims 1-7 (all partially)

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position V203 in SEQ ID NO:1 , polynucleotide encoding it, methods for preapring it and the use of said polypeptide  
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## 7. claims: Claims 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position V228 in SEQ ID NO:1 , polynucleotide encoding it, methods for preapring it and the use of said polypeptide  
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## 8. claims: Claims 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position T231 in SEQ ID NO:1 , polynucleotide encoding it, methods for preapring it and the use of said polypeptide  
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## 9. claims: Claims 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position N233 in SEQ ID NO:1 , polynucleotide encoding it, methods for preapring it and the use of said polypeptide  
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## 10. claims: Claims 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position L259 in SEQ ID NO:1 , polynucleotide encoding it, methods for preapring it and the use of said polypeptide  
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## 11. claims: Claims 1-7 (all partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a deletion at a position which corresponds to position D266 in SEQ ID NO:1 , polynucleotide encoding it, methods for preapring it and the use of said polypeptide

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12. claims: Claims 1-7 (all partially)

Polypeptide having phospholipase activity and which has an amino acid sequence which is at least 50% identical to SEQ ID NO: 1 and has a substitution at a position which corresponds to position L269 in SEQ ID NO:1 , polynucleotide encoding it, methods for preapring it and the use of said polypeptide

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.:

On the basis of the Figure 1 shown in the application it may be possible to search mutations in the corresponding positions of the SEQ ID NOs: 2 to 14. However, it is impossible to determine (and consequently to search) the corresponding position in a lipase which is merely characterised by the fact that it is 50% identical to SEQ ID NO:1

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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